

Sustainable School Transportation for Mary Hogan Elementary

Middlebury College Environmental Studies Community-Engaged Practicum

Sustainable Transportation: *Access, Participation, and Independence*

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INTRODUCTION

Safe Routes to School (SRTS) is a national program that aims to improve pedestrian and cyclist safety while encouraging walking and biking among students. Participating in active transportation both promotes positive health outcomes for children while reducing traffic congestion and pollution around schools (US Department of Transportation 2015). As part of this national initiative, individual schools across the country can collect transportation behavior data through standardized surveys and travel tallies to understand and overcome barriers to active transport. Additionally, schools and other local entities can receive funding to implement Safe Routes to School programs (Safe Routes 2020, US Department of Transportation 2015).

Mary Hogan Elementary in Middlebury, VT, a school with 450 students in pre-kindergarten to sixth grade, collected SRTS data and completed its latest comprehensive travel plan in 2013. Given the long span since this last report, our project includes the collection of more current data for an updated travel plan. Our team, part of Middlebury College's Environmental Studies capstone seminar on sustainable transportation, was tasked with assisting Jen Kravitz, principal of Mary Hogan Elementary, and Erik Remsen of SRTS in these efforts. Specifically, we were asked to help with creating and distributing surveys as well as developing a campaign to promote walking and biking to school. The goal of the surveys was to understand current behavioral trends with regard to transportation, as well as barriers and obstacles to different modal choices. With these data, we then crafted campaigns and proposed solutions that directly address the most relevant concerns.

We would like to acknowledge that we are not the only people studying school travel or transportation barriers in Middlebury, and many individuals and organizations have been working on these issues for a long time. We are greatly indebted to these groups for the guidance, information, and insight they have provided us this semester, and our goal is to supplement existing knowledge, offer a new perspective, and aid where we can.

BACKGROUND AND LITERATURE REVIEW

The goal of our project was originally to create a campaign that would promote sustainable transportation to Mary Hogan Elementary School, using planned railroad construction (and associated road closures) in downtown Middlebury as a window of opportunity for encouraging behavior change. However, the COVID-19 outbreak postponed the construction project to the summer (when children are out of school), and we cannot predict if or when the construction will disrupt travel to school. Consequently, our campaign shifted to focus on the disruption caused by COVID-19. Since March 2020, classes at Mary Hogan have been cancelled and students are not travelling to or from school. Promoting behavior change during a disruption and stimulating active transportation were, thus, the focus of our research.

Traumatic global events, such as the COVID-19 pandemic and its resultant economic effects, can cause short- and long-term impacts on travel behavior. The Center for Transportation found that lingering fears of shared transportation modes may direct people to other modes, such as biking and walking, which do not require close personal contact with others (Eby 2020). Some bike shops have begun to see increases in sales and repairs (Eby 2020). The mere act of purchasing or repairing a bicycle may serve as enough of a commitment to push some to longer-term behavior change (Eby 2020). Investing in a bike is also a more affordable option than buying a new automobile. Car sales have decreased compared to last year, with auto analysts expecting the decline in sales to continue (Isidore 2020). Decreases in travel correspond to increased safety on roads, with less vehicular traffic leading to fewer accidents and increased safety for pedestrians and cyclists (Eby 2020, Gross 2020).

Furthermore, improved physical and mental health and maintaining strong immune systems are crucial right now. Students that walk or bike to school will see significant improvements in physical health, as walking or biking to school provides valuable exercise and burning of calories (Reith & Haley 2009). Physical activity also increases the effectiveness of the immune system and reduces the risk of cardiovascular diseases, cancer, diabetes, and other chronic diseases (European Public Health Alliance 2020). These conditions affect people of all ages, and can increase the risk of more serious health complications if one contracts COVID-19 (Center for Disease Control and Prevention 2020). Additionally, decreases in independent travel being made by younger students to and from school due to safety concerns regarding walking and cycling results in increased car dependency among youths (Reith & Haley 2009).

Lastly, the national Safe Routes to School partnership suggests different ways to keep building the Safe Routes to School movement remotely (UNC Highway Safety Research Center 2020). They have crowdsourced suggestions and resources to keep children thinking about sustainable transportation despite widespread inability to work directly with students in schools, meet with decision makers, and organize community events (Appendix I).

METHODS

In order to understand patterns of bus ridership, we mapped school bus stops and student residences. We obtained the geocoded bus stop locations from Tim Ammon at Decision Support Group, a company that is performing an efficiency audit of Addison County School District (ACSD) bus routes. After obtaining data from the ACSD Business Manager, Brittany Gilman, we received help from Bill Hegman, a GIS Specialist at Middlebury College, to geocode the addresses of Mary Hogan students and bus riders. We then displayed the data over a shapefile of Addison county with roads, created a detailed map focusing on the area in which the majority of Mary Hogan students lived, and added a legend, reference features, and a locator map of the entire county (Figure 1). By visualizing current trends in transportation modes we were able to improve our understanding of barriers to bus ridership, an important sustainable transportation mode for students, and design our recommendations accordingly.

Additionally, we gathered data on current transportation behaviors for Mary Hogan students via a survey. We took inspiration from the past parent survey, distributed in 2013, which asked caregivers questions about how far their children lived from school, their most frequent mode of travel to school, and what sorts of factors impacted their decision to allow or not allow their children to walk or bike. Our survey contained these questions from the model survey. In addition, we asked if the implementation of certain measures would change parents' willingness to allow their children to travel to school via sustainable transportation. The full survey can be found in Appendix II. The survey was created as a Google form, and the link was sent out in a weekly newsletter from the Mary Hogan administration to parents as well as via Front Porch Forum.

Our work also included engagement and outreach with Mary Hogan faculty, parents, and Middlebury community members. Understanding that the curriculum in most Mary Hogan classes was restructured due to COVID-19, we reached out to Mary Hogan teachers with bike and pedestrian education lesson plans crowdsourced by the national Safe Routes to School partnership that could be used in remote learning plans (Appendix I). We also made an effort to continue our sustainable transportation campaign to the Middlebury community, remotely. This campaign included developing a flyer promoting National Bike to School Week, which took place on the week of May 4 (Appendix III). We connected with Addison Central School District, who agreed to include the Safe Routes to School Bike to School Week daily challenges in their newsletter and via a Facebook page post (Appendix IV). These daily challenges remind students of the safety, fun, and community connections that stem from active transportation.

Lastly, parent comments from our surveys were shared not only with our project partners, but also with Mike Winslow from ACRPC to be incorporated into recommendations that he is sharing with VTrans. In 2021, VTrans has projected resurfacing projects in Middlebury along Court Street, Routes 7, 125 and 30. These roads converge upon the village of Middlebury and provide routes to and from Mary Hogan for those living in areas outside of the Middlebury village center. Mike

Winslow plans to use parent comments from our survey to support the inclusion of bike lanes and well-established shoulder areas in the repaving project, particularly in areas that would be frequently used by pedestrians and cyclists if not for safety concerns.

RESULTS

Mapping Results

Many Mary Hogan students already ride the bus (Figure 1). Specifically, 313 of the 445 students are registered as bus riders, which includes those who ride the bus one way (Gilman 2020a, Gilman 2020b). Of the non-bus riders who live further from the school some do not have bus stops close-by, while some do, suggesting that some families opt out of the bus due to concerns about the mode (e.g. travel time or social conditions, as indicated in survey results), rather than a lack of access. Finally, many non-bus riders are clustered within a mile of the school (Figure 1); our more detailed survey data will help provide a sense of how many of those non-bus riders who live within a mile of the school are walking or biking versus driving.

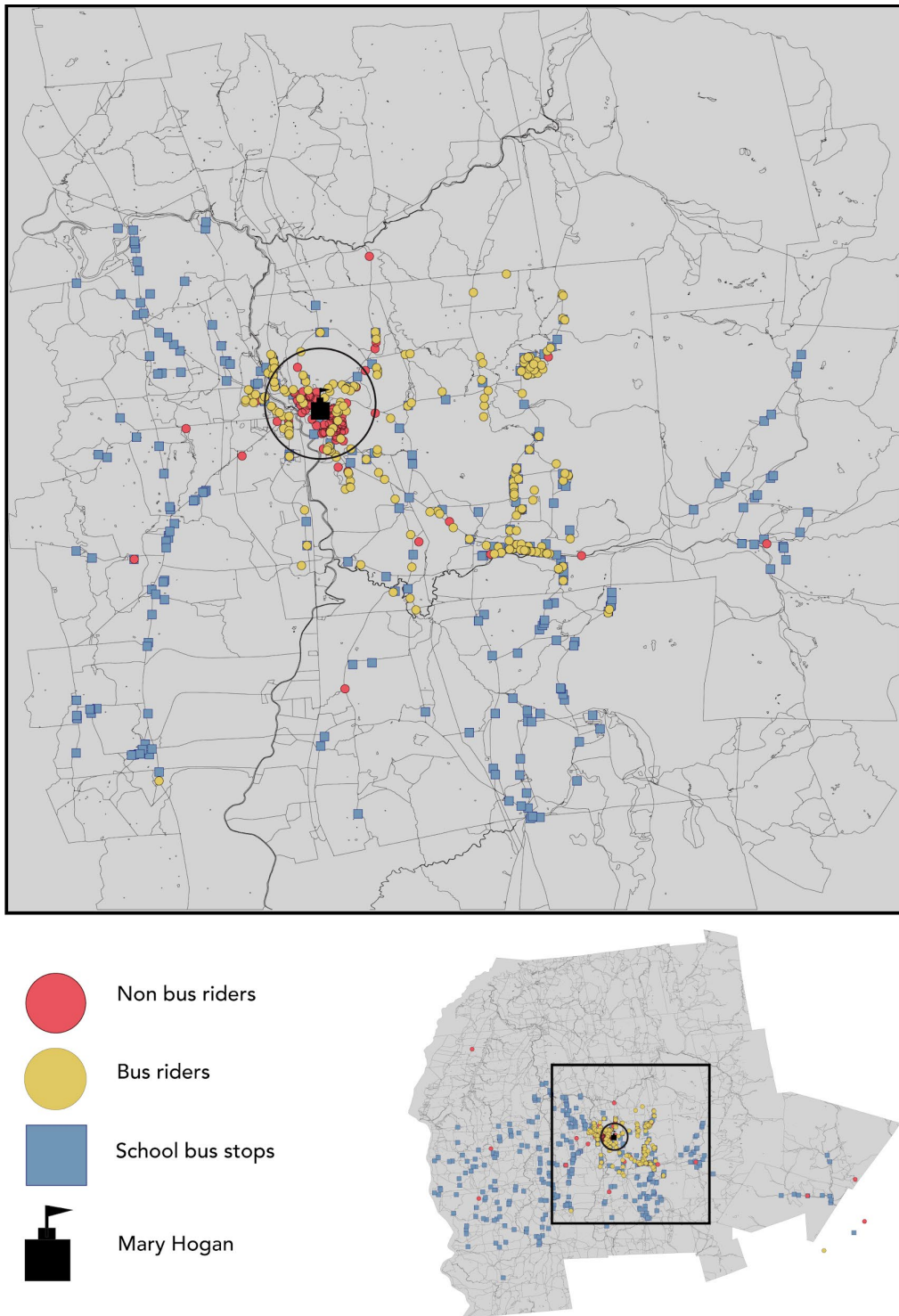


Figure 1. Mary Hogan Elementary students and bus stops. Data from Addison County School District. Radius of the circle represents a one-mile distance from the school. Bus stops serve the entire district. Seven Mary Hogan students (one of whom rides the bus) live beyond the extent of the primary map in Figure 1.

Survey Results

We received 58 total parent responses to the survey, representing 79 Mary Hogan attendees out of a total student population of 450. The distribution of students by grade level is shown in Figure 2.

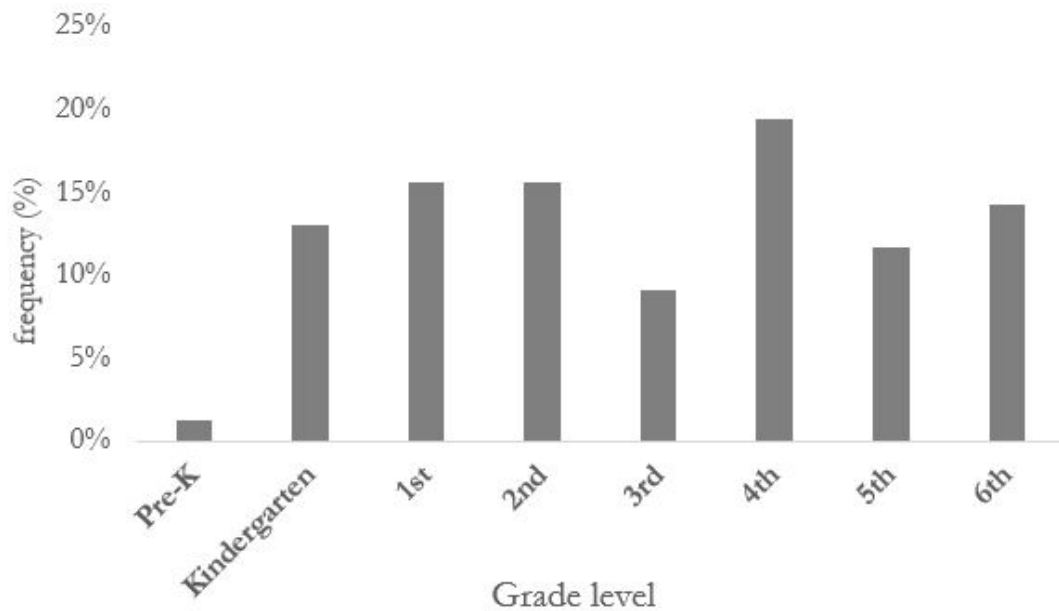


Figure 2. Distribution of students represented in the survey by grade level. N = 77. Two students were excluded here because their grade levels were unclear.

Over 29% of students lived more than two miles from the school, while only 11% reported living less than a quarter mile from the school. The total distribution of residence distance from school is shown in Figure 3.

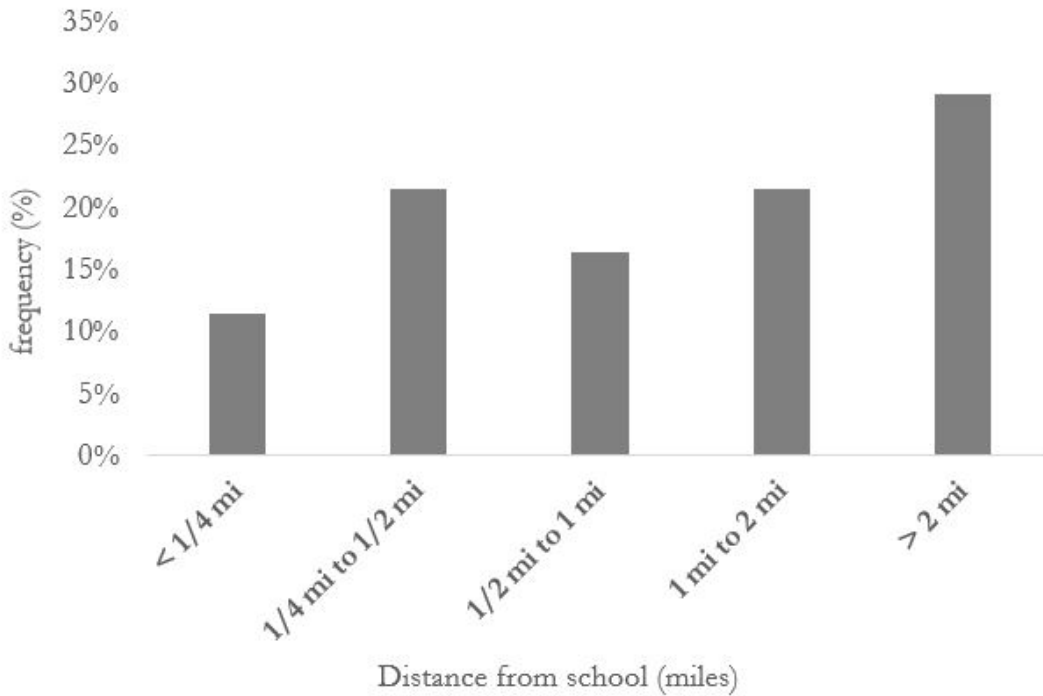


Figure 3. Distance of student residences from school. N = 79.

Over half of parents (59%) responded that their children had access to bus services. Among these bus-eligible students, riding the bus was the dominant travel mode, followed by riding in a personal vehicle (Figure 4). When returning home from school, personal vehicle usage increased and riding the bus and in a personal vehicle were equally common (Figure 5).

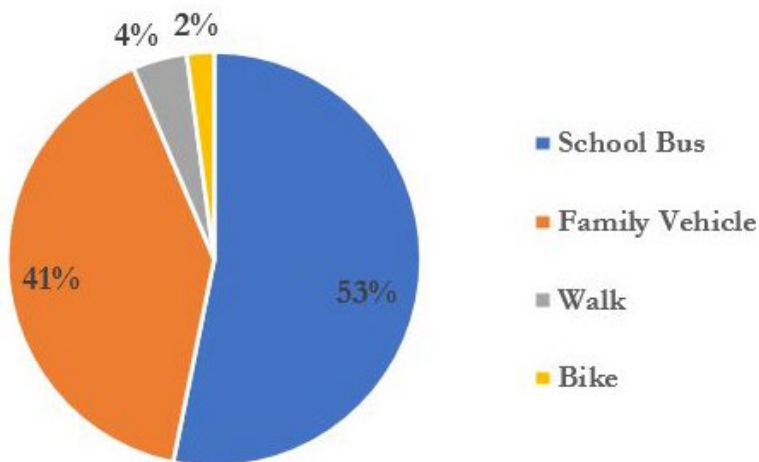


Figure 4. Frequency of different travel modes when going to school among students that have access to bus services.

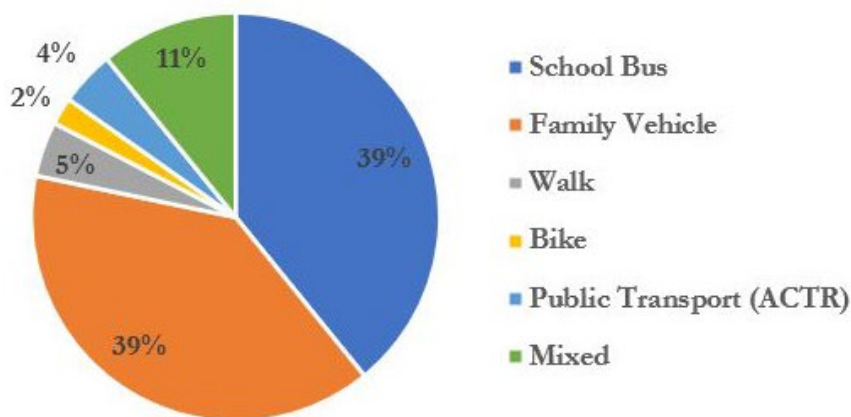


Figure 5. Frequency of different travel modes when returning home from school among students who have access to bus services.

Parents could select multiple items from a list of concerns about allowing or not allowing their children to travel via different sustainable transport modes: walking and biking or riding the bus. Of the parents who did not allow their children to ride the bus to or from school, 22% cited the presence of older children as one of their reasons, 19% expressed concerns about bullying and violence, and another 19% pointed to time constraints. Additional concerns were also mentioned, though at lower frequencies (Figure 6).

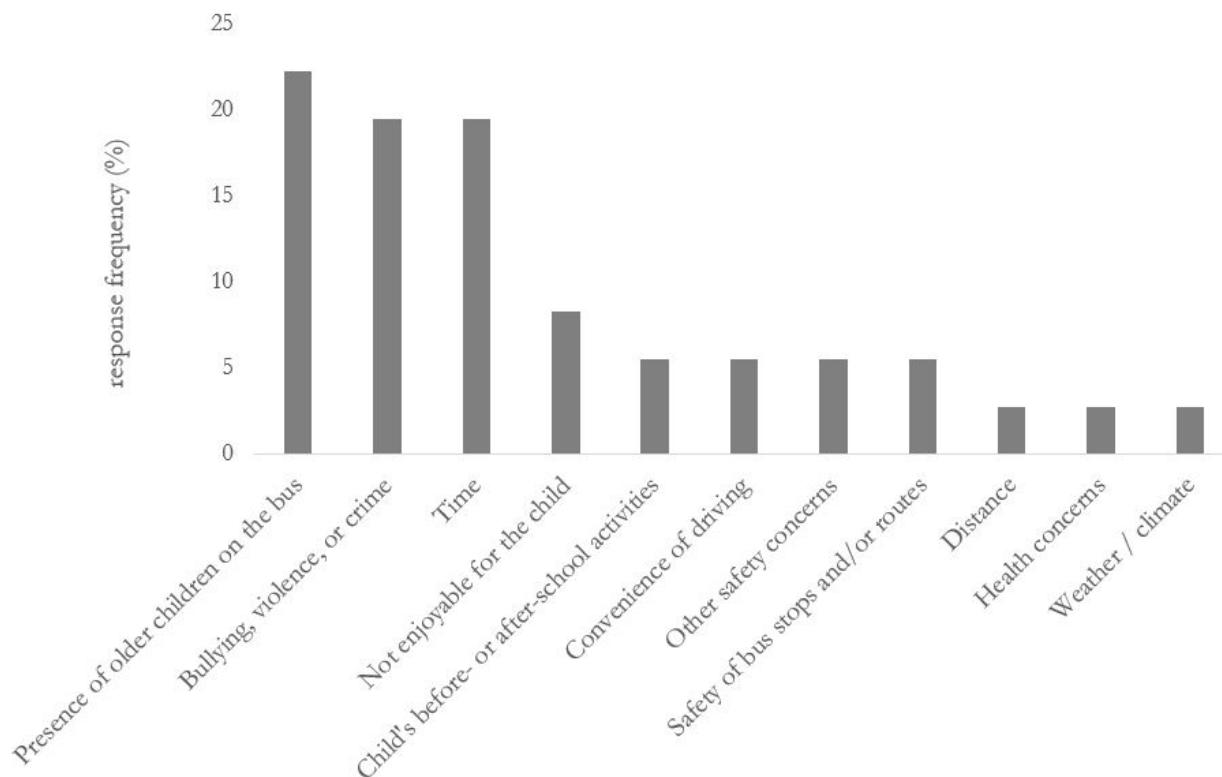


Figure 6. Reasons cited by parents of bus-eligible non-bus riding students for not allowing their children to ride the bus. Parents were presented with a list of concerns and could select all that applied. N = 36.

Some parents elaborated on these concerns:

- ❖ *My daughter rides a full bus often with 3 kids to a seat which bothers me. The driver can't control behavior or volume of kids at this point. My daughter dislikes riding the bus because other students take her assigned seat and say mean things to the younger students. Sometimes I work early and she needs to take the bus and I feel bad.*
- ❖ *It is unrealistic to expect a school bus driver to monitor children's behavior on the bus and focus on driving. I'd feel more comfortable if there was a designated adult [who] was responsible for monitoring behavior.*
- ❖ *My primary concerns are time and safety.... [I'm] not unhappy with the bus, but do not particularly like having a 6-year-old ride with high schoolers, and a route that is 1 mile long but takes 40 minutes (and in the early morning) is rather absurd.*
- ❖ *We have tried riding the bus and on multiple occasions there has been negative behavior by older children.... I would generally prefer to use the bus to avoid the school congestion since I am fortunate that the riding time is low to/from our stop but it is a negative environment for a young child.*
- ❖ *Would prefer a more direct bus route to and from East Middlebury. A 45-minute bus ride to school (which takes less than 10 minutes by car) is ridiculous.*
- ❖ *I would be willing to utilize the school bus if I knew there was a second adult on the bus whose responsibility was to monitor behavior on the bus.*

We polled parents who had mentioned social concerns to see whether their decision to let their children ride the bus would change if an older child accompanied their younger children during the commute. Although only one-third of parents were confident that a chaperone system would make them more likely to allow their children to ride the bus (33%), there was also a high percentage of parents that were open to the idea (44%) (Figure 7).

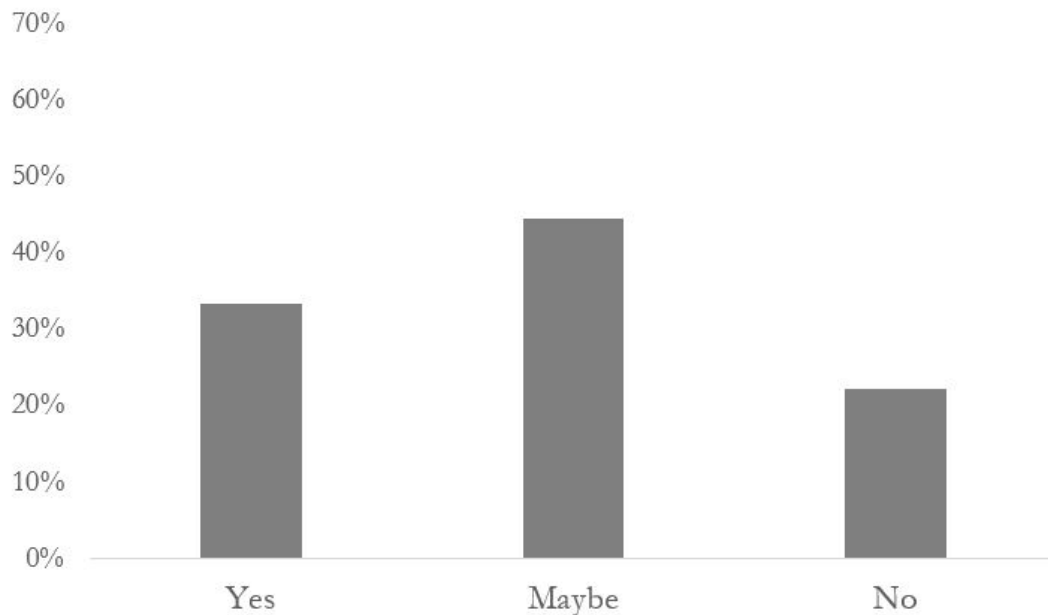


Figure 7. Parent responses to whether having an older student chaperone would change their opinion about allowing their child to ride the bus. We analyzed the responses just for those parents who cited social concerns. N = 9.

It is important to keep in mind the small sample size: only nine of the 36 parents that did not permit their children to ride the bus selected presence of older children and/or bullying as reasons for that. Nonetheless, the prevalence of social considerations as obstacles to bus-riding, even among this limited sample, suggests that the chaperone proposal could be a potentially viable solution to help resolve some of these concerns and ease parent worries.

In the survey, parents were also asked about their childrens' walking and biking habits in relation to school transport. In total, 35% of the children who were included in the survey reported that they were walking or biking to school on a regular basis. Moreover, the majority of the children who live under a mile away from the school report walking and biking (Figure 8). As the distance increased to 1-2 miles away, only 6% of children were reported to be using these sustainable forms of transport and at >2 miles away, none of the children in this sample walk or bike.

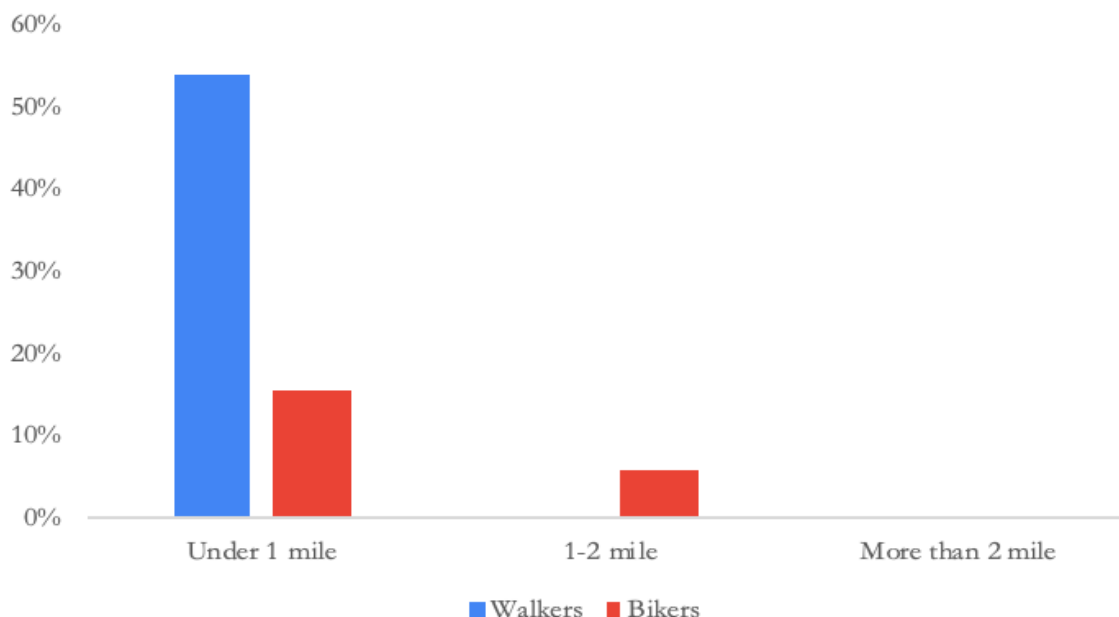


Figure 8. Percentage of children walking and biking to school from different distances.

Parents were asked to identify which potential barriers were of most concern to them regarding letting their child walk or bike to school. Of the parents of children who live >2miles away from the school, 88% expressed a great concern with distance; because of this concern, the fact that no child living this far from school currently walks/bikes, and the unrealistic nature of having an elementary school-aged child walk or bike this far to school, our team focused our attention on children who live <2miles from school but do not currently walk or bike.

While focusing on this group of “close” non-walkers and bikers, the top barriers identified were safety of intersections and crossings, speed of traffic along route, amount of traffic along route, and distracted drivers (Figure 9). All of these concerns are route specific and require attention to specific parts of town that parents find concerning. The parents were asked to name specific locations within Middlebury that they find dangerous in regard to letting their child walk or bike to school. The top geographic areas that parents most identified as concerning were Route 7 in general, Court St., Washington St., and Washington St. Extension (Figure 10). Route 7 is a major road, and it is difficult for children to walk along, due to the speed of traffic, and to cross, as needed. Concerning Court St., the specific area of Route 7 outside of the school, parents specifically expressed concern with areas that may not have a crosswalk light and the area in front of the high school. The high school specifically brought up concerns of distracted and teen drivers. Parents brought up concerns of unsafe disregard of traffic signs on Washington St. and the four-way intersection on Washington St. Extension. These are some of the concerns most frequently expressed; see Appendix V for all parent responses to “Are there any specific locations that make you worried about letting your child walk or bike to/from school?”.

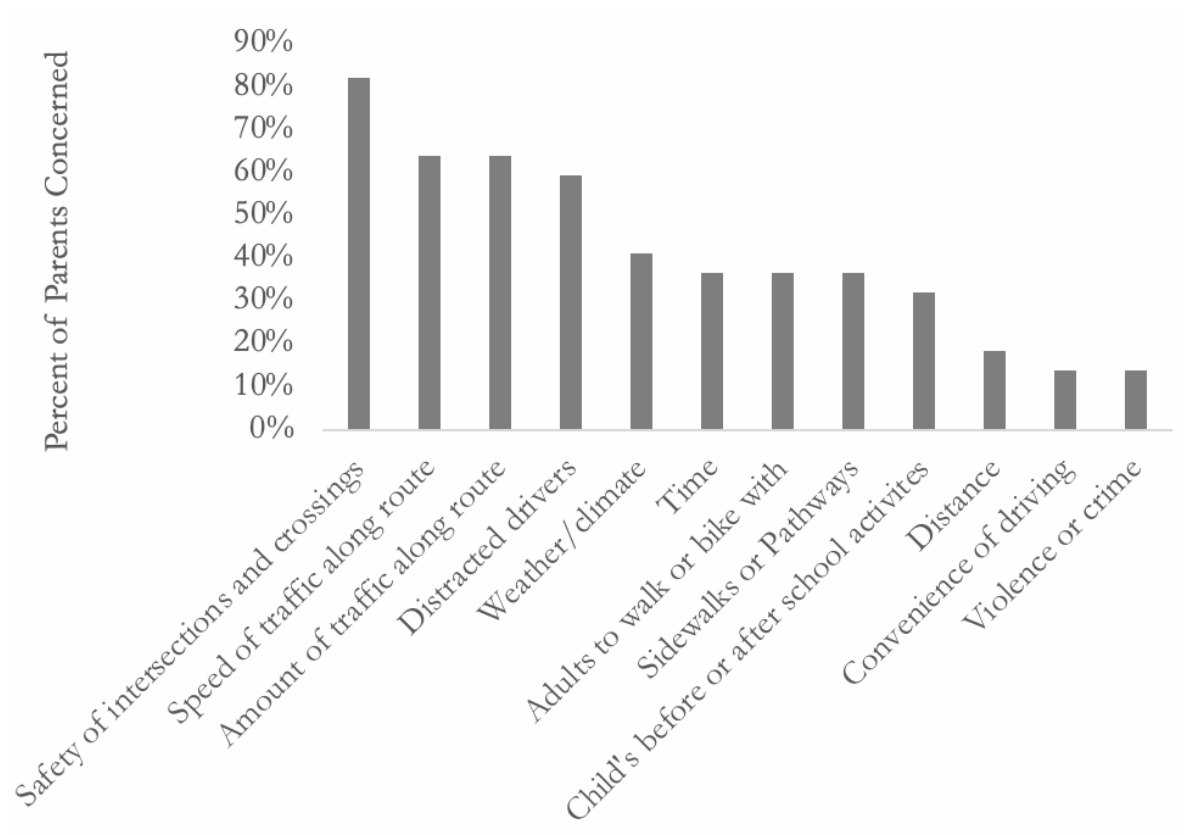


Figure 9. Percentage of parents who expressed concern with specific barriers.

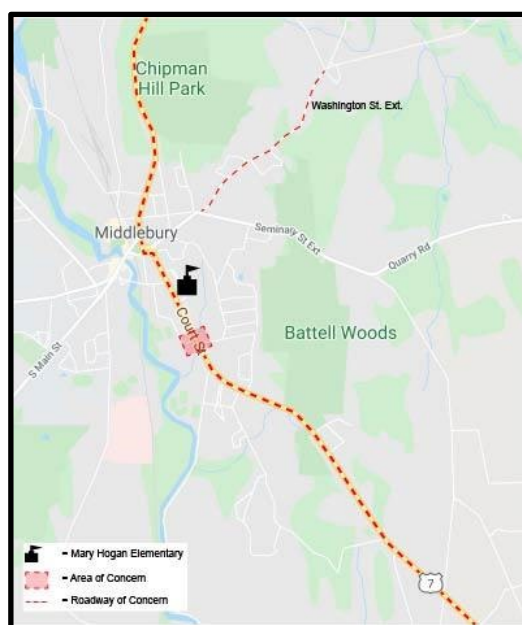


Figure 10. Visualization of geographic areas of concern.

In addition to looking for specific areas of town that can be targeted with solutions, parents were polled on their opinions of specific possible solutions to issues. When asked if having more crossing guards through town would increase their comfort with letting their child walk or bike to school, 55% of parents whose children live <2 miles of the school and do not currently walk/bike to school responded yes and 41% said maybe (Figure 11). When asked if having walking or biking groups would increase the likelihood of letting their child walk or bike to school, 55% of parents in this demographic said yes and 45% said maybe (Figure 12). Implementing these solutions in the locations that parents deemed most concerning would be helpful to encourage walking and biking for students who go to Mary Hogan Elementary School.

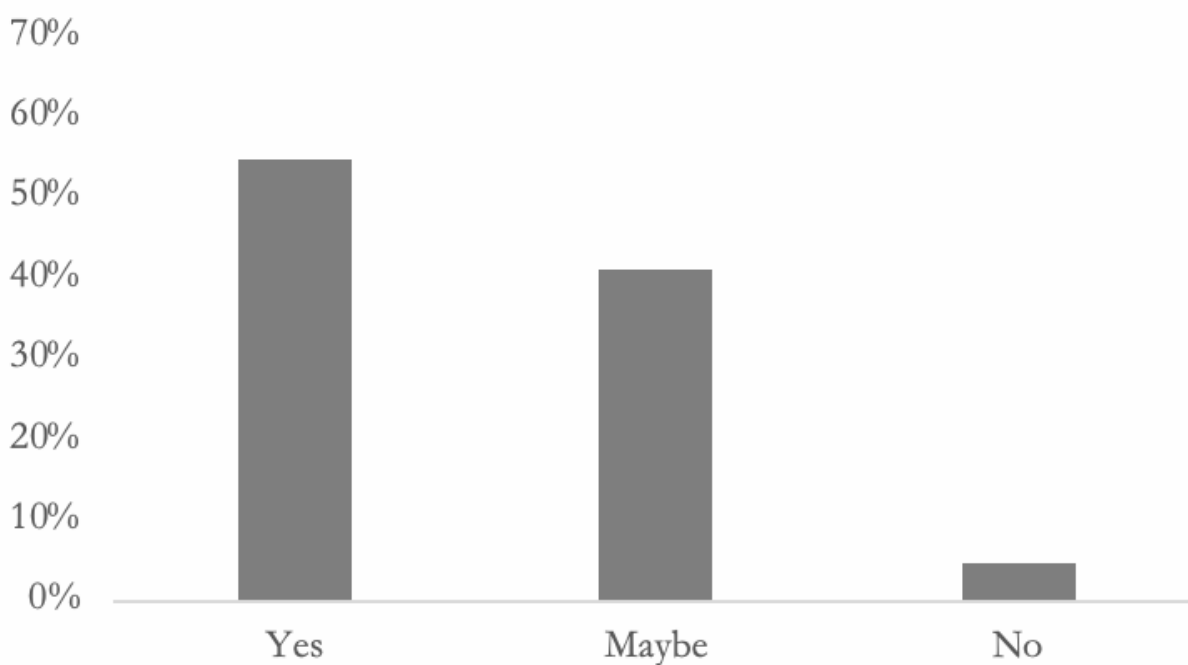


Figure 11. Poll results when parents were asked if having crossing guards would make them feel more comfortable letting their child walk or bike to school.

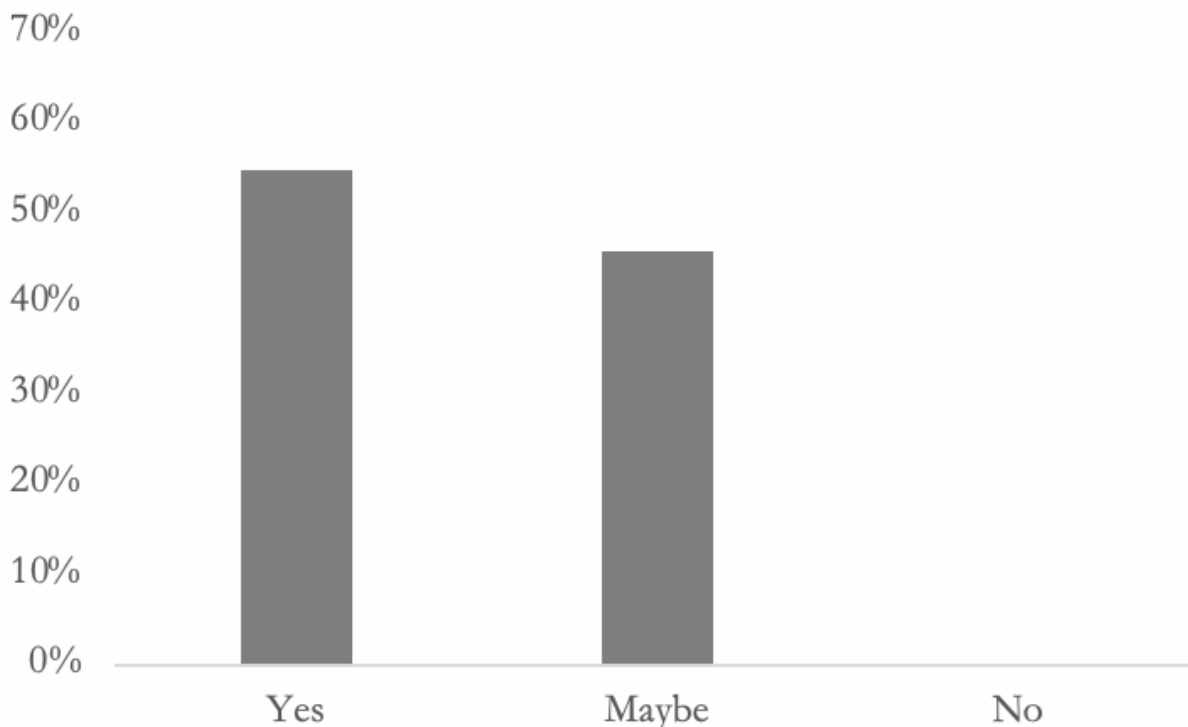


Figure 12. Poll results when parents were asked if having walking or biking groups would make them more likely to let their child walk or bike to school.

When there are disruptions to one's regular routine, habits tend to change or be more flexible to changes (Bowen 2020, Joselow 2020, Lindsey 2020). Because of this and early indications of an increase of walking and biking during the COVID-19 pandemic, we hypothesized that more children may begin using this active transport to school. However, when asked if they thought this disruption would change how their child got to school, 68% of parents whose children did not already walk, bike, or ride the bus said no, this would not change their child's habits (Figure 13). Nonetheless, due to future uncertainty and given that parents presumably based their predictions of future habits on current walking and biking conditions, we hypothesize that there is still potential for behavior change in the wake of the COVID-19 disruption. Our understanding is informed by a review of literature on behavior change as it relates to transportation and COVID-19 (Eby 2020, Gross 2020, Lanzini & Khan 2017), which leads us to believe that either COVID-19 or future disruptions, such as construction in town, will create opportunities to encourage walking and biking habits. Specifically, according to both the Theory of Planned Behavior and a recent meta-analysis, intentions are the best predictor of sustainable transportation use, but they are followed by habits and past use (Lanzini & Khan 2017). Habits are actions taken repeatedly within a stable context and without truly deciding each time what action is best. When the context changes, however, it can force a new decision to be made about what action is best. This idea is captured by the Habit Discontinuity Hypothesis, which posits that disruptions to our habits create windows of opportunity in which individuals are more likely to rationally evaluate alternative behaviors. Additionally, there is

evidence of an intention-behavior gap when it comes to sustainable transportation; there are discrepancies between how people intend or want to behave and how they behave in actuality (Lanzini & Khan 2017). This can be considered alongside the Theory of Repeated Behavior, which states that individuals tend to reuse past solutions because learning and uncertainty make new decisions costly. This theory is especially true when individuals are constrained by time, social commitments, or other limiting factors (Lanzini & Khan 2017). These theories and findings are directly applicable to the current situation in Middlebury regarding transportation in the context of COVID-19: it is certainly possible that the current high level of disruption combined with a reduction in other typical constraints and changes to habits might give individuals the opportunity to consider and adopt new transportation behaviors.

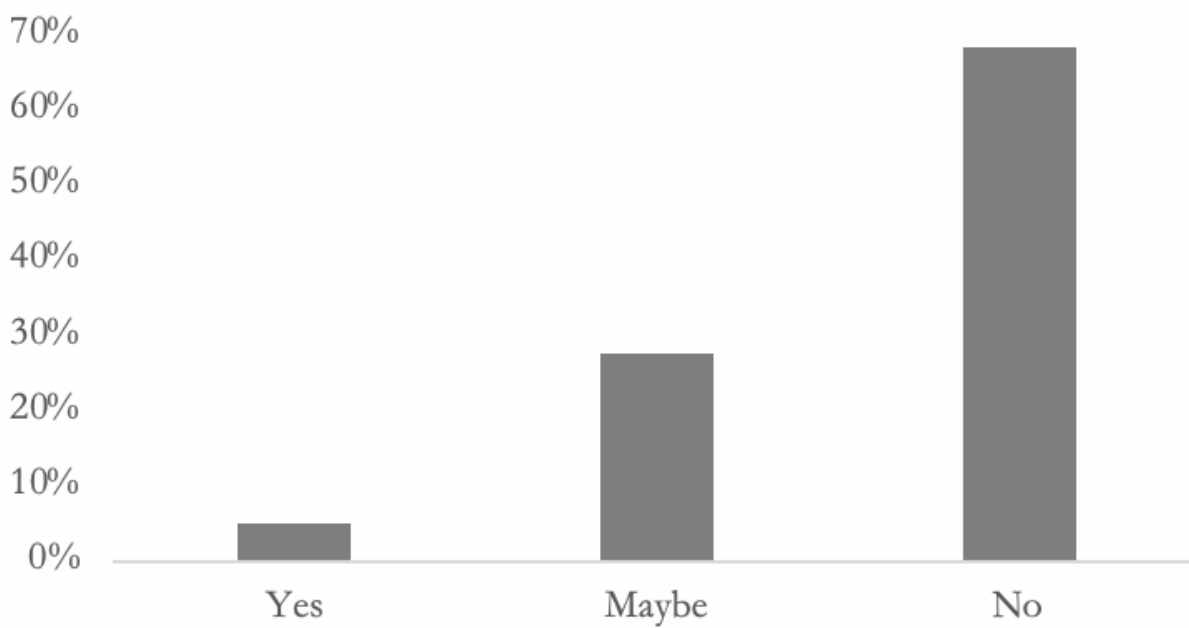


Figure 13. Percentage of parents of non-walkers, bikers, and bus riders who believe that their habits will not change because of COVID-19.

RECOMMENDATIONS

Our recommendations address major parent concerns from the survey and can be divided into recommendations for Mary Hogan Elementary School and recommendations for the Town of Middlebury. Many of our recommendations come from case studies of other school districts or parent suggestions from the comment section of our survey. These parental comments can be found in Appendix VI and are divided into categories based on themes.

Recommendations for Mary Hogan Elementary School

Among the parents who completed the survey sent out, 83% of them identified safety at intersections and crosswalks as a barrier to walking or biking to school. Currently, there is only one crossing guard working throughout the entire town of Middlebury. When asked if having volunteer crossing guards would make them more likely to let their child walk or bike to school, 41% of parents replied yes and 50% of parents replied maybe. A study by Chriqui et al. (2012) supports these results and found that state laws that require crossing guards around schools appear to be effective at reducing barriers to walking and biking to school. **Because of these results, we recommend that the school reach out to the community to see if there is interest in participating in a volunteer crossing guard program.**

Another finding from the surveys was that 50% of parents said they would be more likely to let their child walk/bike to school if there was a neighborhood group, or a “walking bus,” that could provide supervision for their child on their way to school. Jones et al. (2019) analyzed 17 school districts and found statistically significant evidence that schools with walking groups had increased instances of walking to school and greater physical activity for participating students. **We, therefore, recommend encouraging parents to form walking/biking groups or organize a chaperone system.** Walking/biking groups are typically groups of older students that live in the same neighborhood. Parents organize these children to travel to school together and take accountability for each other. In contrast, chaperone systems often include traveling to school with younger students. A parent or older student, thus, accompanies the younger students in walking/biking to school safely.

Parents also expressed that they would feel more comfortable letting their child ride the bus if there was an adult other than the bus driver present to watch the children (Appendix VI). In fact, the Connecticut School Transportation Commission claims that school bus monitors are the “single most effective way to improve school bus safety” (Bernstein 1992). **As a result, we recommend bus monitors be present on each bus to assist the bus driver in maintaining discipline on the bus and to safely load and unload students from the bus.** We recommend that this bus monitor be an adult, rather than an older student, because only 25% of parents that responded to the survey said that having an older child walk/bike/ride the bus with their child would make them more likely to use that form of transportation.

In addition to updating the Mary Hogan Safe Routes to School Travel Plan with the survey results and bus ridership maps, **we also recommend that a map of safe and convenient routes to Mary Hogan be produced and added to the Travel Plan.** We envision that this map will include routes that travel from general neighborhoods (within walking/biking distance to Mary Hogan) to Mary Hogan Elementary School, strictly following safe roads with sidewalks and low traffic.

Our final recommendation for Mary Hogan is that teachers and PE teachers incorporate lesson plans on the benefits of sustainable transportation. Getting the students enthusiastic about sustainable transportation will be critical for building momentum and confidence towards more sustainable modes of transportation. Mary Hogan's PE teacher, Cyndi Palmer, was eager to work with our group in promoting Bike to School Week and encouraged students to complete the National Bike to School Week activities shown in Appendix III. We are hopeful that other Mary Hogan faculty members will agree to teach their students about sustainable transportation as well.

Recommendations for the Town of Middlebury

We recommend designating bike paths on roads that are frequently trafficked by pedestrians. Our survey comments suggest that Route 7 and Court Street are both dangerous to travel on by bike because of heavy, fast moving traffic. And, unsurprisingly, a study of how students travel to school in the US and other Western European Countries found that areas with more amenities for biking and walking, such as sidewalks, bicycle lanes, or paths are associated with more active commuting to school (Buelhler et al. 2016). As a result, consideration should be given to designating bike paths on both of those streets. In an effort to accomplish this recommendation, parent comments from our surveys were shared with Mike Winslow from Addison County Regional Planning Commission (ACRPC) and will be included in his recommendations for the Vermont Agency of Transportation's (VTrans) scheduled resurfacing projects for Routes 7, 125, 30 and Court St. in 2021.

We also suggest that bike and pedestrian counts be taken along Routes 7, 125, 30, Court Street, and other major roads in Middlebury to understand which roads and sidewalks get the most pedestrian traffic. Streets with high pedestrian traffic should be prioritized during repaving projects. And, streets that get little bike and pedestrian traffic should be analyzed to discern if improvements could increase pedestrian and bike travel.

In conclusion, we recognize that some of our recommendations could be challenging to accomplish because they require volunteer labor (e.g. bus monitors and crossing guards) or monetary investments (e.g. repaving projects). It's not crucial that each one is accomplished immediately; however, a concerted effort should be made towards promptly implementing as many of these recommendations as possible while the daily routines of many parents and students are still being disrupted by the pandemic.

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Finally, we are incredibly grateful to Molly Costanza-Robinson and Diane Munroe for their support, along with all of our ES 401b classmates.

Appendix I: Sustainable transportation teaching materials

<http://www.pedbikeinfo.org/pedsaferjourney/>

<http://alamedacountysr2s.org/covid-19/>

Appendix II: Complete Survey

Dear Parent or Guardian,

We are students from Middlebury College who are studying how children in the community get to and from Mary Hogan Elementary. We know this is an unusual time: the majority of the survey asks about typical transportation habits, so please fill this out to reflect how your child traveled to and from school for the majority of the 2019-20 school year. At the end, we ask some questions about the pandemic's impacts on your child's current level of activity and future patterns of school travel. This survey should take around 5-10 minutes to complete and your responses will be kept confidential. Please fill out one survey per household unless your children use different transportation for traveling to or from school. Your responses will be kept confidential and neither your name nor your child's name will be associated with any results. Thank you so much for your time and we hope that you are all doing well!

How many children do you have that go to Mary Hogan? (1, 2, 3, 4, 5 or more)

What grade is your child in/what grades are your children in? (pre-K, kindergarten, 1st, 2nd, 3rd, 4th, 5th, 6th)

How far does your child live from school? (less than $\frac{1}{4}$ mile, $\frac{1}{4}$ to $\frac{1}{2}$ mile, $\frac{1}{2}$ to 1 mile, 1 to 2 miles, more than 2 miles)

Is your child eligible for school bus services? (yes, no, not sure)

During the typical school year, how does your child most often get to school? (walk, bike, school bus, family vehicle, carpool, public transport (ACTR), other)

During the typical school year, how does your child most often leave from school? (walk, bike, school bus, family vehicle, carpool, public transport (ACTR), other)

What is the street intersection nearest your home? Please provide the names of two intersecting streets

How long does it typically take your child to get to school? (less than 5 minutes, 5-10 minutes, 11-20 minutes, more than 20 minutes, don't know/not sure)

How long does it typically take your child to get home from school? (less than 5 minutes, 5-10 minutes, 11-20 minutes, more than 20 minutes, don't know/not sure)

Has your child asked you for permission to walk or bike to/from school in the last year? (yes, no)

At what grade would you allow your child to walk or bike to/from school without an adult? (pre-K, kindergarten, 1st, 2nd, 3rd, 4th, 5th, 6th, not comfortable at any grade)

Which of the following are concerns that impact your decision to allow, or to not allow, your child to walk or bike to/from school? Select all that apply. (distance, convenience of driving, time, child's before- or after-school activities, speed of traffic along route, amount of traffic along route, adults to walk or bike with, sidewalks or pathways, safety of intersections and crossings, violence or crime, distracted drivers, weather/climate, environmental concerns, healthy habits, fun activity for the child, other)

Are there any specific locations that make you worried about letting your child walk or bike to/from school?

Would having more crossing guards make you feel more comfortable letting your child walk or bike to/from school? (yes, no, maybe)

Would having organized neighborhood walking or biking groups make you more likely to allow your child to walk or bike to/from school? (yes, no, maybe)

Which of the following are concerns that impact your decision to allow, or to not allow, your child to take the bus? Select all that apply. (distance, convenience of driving, time, child's before- or after-school activities, safety of bus stops and/or routes, bullying/violence/crime, other safety concerns, weather/climate, environmental concerns, health concerns, enjoyable for the child, other)

Would having an older child chaperone your child to/from school make you more likely to let them walk, bike, or take the bus? (yes, no, maybe)

If your child is older, do you think they would be interested in helping younger children safely get to/from school? (yes, no, maybe)

Do you think that, with this disruption to normal life, your transportation habits will change for the next school year? (yes, no, maybe)

If yes, then how do you anticipate these changes impacting how your child gets to/from school?

How is your child currently staying active?

Please provide any additional ideas, comments, or concerns below.

Would you be willing to be contacted in order to provide more specific details to help with this project? (yes, no, maybe)

If yes, please provide your contact information below (name, email/phone number)

Appendix III: Bike to School Day Flyer

Bike to School Day 2020: From a Distance

This year, we can't gather together to celebrate Bike to School Day, but it's still a great time to focus on safety, fun and community connection. We're offering a week of ideas from May 4 to May 8 to help you do just that. Though not every idea will fit every neighborhood, we encourage you to pick among the options that



make sense for your area and fit with local public health guidance. And, of course, if you can get outside for a walk or bike ride every day, great! Please help continue the strong sense of community that makes Bike to School Day so powerful by posting pictures on [Facebook](#), [Instagram](#) or [Twitter](#) and using the hashtag #BiketoSchoolDay.

Monday, May 4

INSPIRE: Decorate your sidewalk, windows or bike with signs of encouragement to bike and walk for your neighbors. For motivation to get biking, older students and caregivers can check out this [inspirational video](#) from People for Bikes.

Tuesday, May 5

PREPARE: Conduct a bike safety and helmet fit check. Do you have a bicycle? If so, have you done a basic safety check? Check the [fit of your helmet](#) and teach others in your family how to properly fit their helmets. Then, do the [ABC Quick Check](#) with help from the League of American Bicyclists. If you're teaching a new bicyclist to ride, check out this instructional [REI video](#) for beginners.

Wednesday, May 6

GET OUT THERE: Get out for a walk or ride with your family! Can you take a [test ride to your school](#) or around your neighborhood? Or take a walk to hunt for chalk art or signs created by others near you? Share a photo of your family or a location on your route with the tag #BiketoSchoolDay.

Thursday, May 7

SHARE: Do you have safety concerns with walking or biking around your neighborhood? [Learn more about who can help address those concerns](#) using this list from PBIC and reach out.

Friday, May 8

TALK: Hold a [five-minute interview](#) with family members about their experience walking or biking. Look into online resources and biking and walking activities encouraged by your state or community transportation departments and advocacy groups.

Appendix IV: Addison Central School District Bike to School Day Facebook post

facebook.com/acsdvt/

Addison Central School District

Max

Like Follow Share ...

Addison Central School District
April 30 at 8:52 AM · 🌐

Bike to School Day 2020: From a Distance #BiketoSchoolDay

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3 2 Shares

Appendix V: Parent Survey Responses Regarding Geographic Areas of Concern

- Quarry Rd. & Rt. 116
- Crosswalk in front of the middle school and crosswalk on Rt. 7--after that she would take the back roads through Buttolph Acres--this is how we bike when we bike together, but she isn't comfortable biking alone.
- Route 7
- College Street and Cross Street; Main Street bridge
- 116, 125, and 7
- Crossing intersection by high school entrance on court street
- We rarely bike because of traffic and distracted drivers. We walk, but the sidewalks stop and start on different sides of the road on Buttolph which means more road crossing. Alarming, the Buttolph crosswalk is not at an intersection and so cars are traveling fast. Our block of high street has no sidewalk and is very narrow. The quickest route involves crossing through the Shaw's parking lot, which is crowded with cars in the afternoon. Lastly, there are homeless men who drink behind Shaw's all day. Still, we walk every day to school, but I always walk with them in the morning, and bring one other kid from our neighborhood. Sometimes my 5th grader walks home with a classmate.
- Having to cross Rt. 7, areas around the Middlebury Inn and Court St.
- After Cross Street bridge--the road that leads down past Mary Johnson and to the High School
- 116
- Crossing Court St anywhere, but especially when there isn't a crosswalk light to stop traffic (e.g. at the north end of school)
- A very tight corner on Washington Street Extension, about a hundred yards after the sidewalk stops
- Route 7 South
- The sharp turn on Washington St Ext
- We live more than 5 miles from the school, walk/bike to school isn't an option
- Where route 7 and Main Street meet
- Crossing Weybridge, the entire route up Weybridge Street, crossing Weybridge/College Street intersection, the roundabout, the bridge, route 7.
- Quarry Rd
- Walking path on one side of road with faded lines on Monroe Street
- The speed of traffic along Route 7. Cars also drive way past the speed limit along the back roads that lead into Middlebury.
- Route 7 is a death trap. I don't think I'll ever let my kids bike there. But they can walk or bike to after-school activities in town.
- Intersection at Academy St. and light at south main St., Middlebury
- Buttolph drive stop sign
- Cars flying over the Pulp Mill Covered Bridge and crossing Route 7
- Route 7 south corridor
- Living off of Route 7
- I see people run the stop signs at Washington and High (by Green Peppers) all the time so I have talked my child to be especially careful there.
- No specific areas. We live off route 7 and there aren't sidewalks. Too much traffic at high speeds.
- Intersection in front of the high school (Court St & Charles Ave)

- Route 7 and Creek Road intersection
- Crossing Route 7
- Not currently. When my kids go to the middle/high schools, they will have to cross Route 7, which concerns me.
- Painter Rd., not much room in side of road and traffic is busy
- Rte. 7
- Not even safe for an adult to ride a bicycle on Route 116 or route 7. My husband rode his bicycle to work and said it made him very nervous even though he's an adult and knows what to do and use for safety.
- Crossing Route 7/ Court St. Also, the amount and speed of traffic on the Cross St. bridge
- People blow through stop signs in our neighborhood. I have almost been hit on the crosswalk several times. Would be concerned with child alone if this has happened with adult.
- Four-way intersection at Springside, Seminary, Seminary St. Ext. and Washington St. Ext.
- Just crossing Rt 7 across from the school

Appendix VI: Summary of Parent Survey Responses: Comments and Concerns

- Bus Concerns (some were emphasized previously in the Survey Results section)
 - When they close all rural schools and bus more kids in it will get far worse.
 - It would be great to have a bus available to/from Hancock & Granville.
 - Would prefer a more direct bus route to and from East Middlebury. A 45-minute bus ride to school (which takes less than 10 minutes by car) is ridiculous.
 - My daughter rides a full bus often with 3 kids to a seat which bothers me. The driver can't control behavior or volume of kids at this point. My daughter dislikes riding the bus because other students take her assigned seat and say mean things to the younger students. Sometimes I work early and she needs to take the bus and I feel bad. We live too far away to walk or bike.
 - I am not unhappy with the bus, but do not particularly like having a 6-year-old ride with high schoolers, and a route that is 1 mile long but takes 40 minutes (and in the early morning) is rather absurd.
 - We have tried riding the bus and on multiple occasions there has been negative behavior by older children. I would generally prefer to use the bus to avoid the school congestion since I am fortunate that the riding time is low to/from our stop but it is a negative environment for a young child.
 - I would be willing to utilize the school bus if I knew there was a second adult on the bus whose responsibility was to monitor behavior on the bus.
- Walking and Biking Concerns
 - Would love for older kids (6th grade) to be volunteer crossing guards in Buttolph neighborhood!
 - Walking and riding is not an option given the distance and roads. I had MUCH more experience riding bikes by an equivalent age, but I don't think either of my kids (including a middle schooler) has the experience or maturity to bike the home/school distance, especially in the morning with commuters on the road as well.
 - Walking to school, on many days, would require me to walk back home to get my vehicle to go to work/run errands making me late. Same with pickup.
 - If you had an adult or college student have a walking bus with a cart for bags that might help but it would still be weather dependent. The informal walking path from the pool parking lot to the Hawk Zone is also weather dependent.
 - Traffic is a major problem, as is sharing the sidewalk with bikers (there is no way I would let kids ride bikes on the road over the cross-street bridge)
 - My oldest was allowed to walk alone in 3rd grade, and my second child in 4th, but my youngest at 2nd grade shows no signs of maturity to be ready for that. It's a very individualized decision.
 - My primary concerns are time and safety. The majority of folks I know who are able to walk and/or bike live far closer (Buttolph Acres and South Street--so very few unmanned intersections), have all their children at Mary Hogan (meaning one drop off or pick up), and/or (if there is a smaller child at home) have a partner/spouse who can "cover" or do the drop off for the other child (my husband leaves at 7am for work, so that is not a possibility for me).
 - I'd also bike with my child to school if there was a designated bike path or bike lane - not just the shoulder of the road.
 - Crossing guards in the neighborhood or police presence to reduce cut through traffic

would be greatly appreciated.

- Vehicle-Specific Concerns
 - Now I drop-off and pickup on commute. It would help if the traffic flow on the Mary Hogan drive was three lanes (put time restrictions on the parking on the right and left and construct a right turn lane onto Court Street). Cars sit in the drop-off lane or don't pull forward so as not to appear to cut into the waiting line to get out to Court Street. The results are blocking the flow into the drop-off lane unnecessarily. Having a right-turn lane would mean when the crossing guard blocks traffic it could clear the congestion by allowing people to turn right outside of the light cycle. I understand your goal is to reduce traffic but increasing the flow would reduce idling. Car seats make carpooling difficult with younger children.
- Other Suggestions or Comments
 - Use the rail project to turn the current construction path that goes under the Cross-Street bridge into a pedestrian rail trail so people can safely move through downtown without crossing intersections. Look at Colorado cities like Fort Collins and Golden to get an idea of this type of pedestrian path system. Integrate that into the TAM system, add a skate park and a bike pump track in town, and watch more young professional families relocate here and contribute to a downtown revival.